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How Inflation and GDP Growth Affect Pakistani Unemployment

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Abstract:

A nation's economic development is dependent on its human resource utilisation. But underutilization of human resources is a major problem that hurts emerging nations' economies like Pakistan's. The high unemployment rate in Pakistan is said to be caused by a number of macroeconomic issues. Accordingly, this study set out to examine Pakistan's unemployment trends over the past decade and to ascertain the degree to which macroeconomic variables, such as GDP growth and inflation, negatively or positively affect the country's unemployment rate. Gather information in order to propose policies that will help Pakistan deal with its high unemployment rate.

Keywords: Inflation, GDP growth, Unemployment, Pakistan, Econometric analysis

Introduction

Human resources are critical to global economic growth, both developed and developing. Pakistan is the world's sixth most populated country, with 60% of its inhabitants employed (Economic Survey of Pakistan, 2012-13, p.166). Inflation and GDP growth rates are two macroeconomic factors that influence Pakistan's unemployment rates. The theory proposes a link between the unemployment rate and the rate of GDP growth. Unemployment, on the other hand, has a considerable association with inflation. The purpose of this study was to look into the relationship between Pakistan's inflation and GDP growth rates and the country's unemployment

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rate. This research report is organised into four sections. The first section has an introduction, and the second contains a synopsis of the reviewed literature. The third section provides a summary of the methods section. The final section is based on the investigation's findings and recommendations.

Literature Review

"Unemployment encompasses individuals aged 15 and above who were classified as 'unemployed' within the specified time frame." The unemployment rate is defined as the proportion of the currently active population that is unemployed, as stated in the Economic Survey of Pakistan, 2012-13, page 11. The underutilization of human resources or a high unemployment rate has detrimental effects on the nation's economic progress. Pakistan is an emerging nation that relies on maximising the utilisation of its existing resources to drive its economy. Regrettably, the country is plagued by elevated levels of unemployment, resulting in economic instability, diminished investment, and widespread poverty. Various macroeconomic factors, such as the rate of GDP growth and inflation, might potentially affect the underutilization of human resources in a country. The interplay between unemployment, inflation, and GDP growth rate is addressed in the subsequent discussion.

2.1 GDP and Unemployment Growth Rates

A robust and steady economic growth is essential for maintaining a strong and stable national economy (Muhammad and Raza, 2013). Economic growth is a significant determinant of the unemployment rate. In theory, there should be a positive correlation between unemployment and economic growth. "During a recession, the economy undergoes a contraction in output and workers who were previously employed are terminated." "During an economic recovery, not only does the output of the economy increase, but it also involves the hiring of individuals who were previously unemployed" (Mallik and Chowdhury, 2001). However, the relationship

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between the GDP growth rate and unemployment rate may be either inverse or direct, depending on the economic conditions of the nation.

Within the designated timeframe. Arthur Melvin Okun's 1962 empirical investigation revealed a significant negative correlation between a country's GDP growth rate and unemployment (Zafar and Zahid, 1998). In Tunah's (2010) study, the researcher examined macroeconomic variables and discovered that there is a notable positive correlation between Turkey's real GDP and the drop in its unemployment rate. According to El-Agrody et al. (2010), there is a substantial and negative association between Egypt's GDP growth rate and unemployment. Pakistan may overcome its high unemployment rate by enhancing its national output. According to Jilani et al. (2010), Pakistan's gross domestic product (GDP) has had uneven growth over the past decade, resulting in a significant increase in the unemployment rate.

2.2 The Relationship Between Inflation and Unemployment

Inflation is the term used to describe a continual rise in prices over a period of time, which is followed by a reduction in the value of money. This definition comes from the Economic Survey of Pakistan, 2012-13. Blejer (2000) and Qayyum (2006) argue that inflation generates economic ambiguity and that an excessive level of inflation within a country poses difficulties for the government in successfully administering policies. Several hypotheses and research have been proposed in the past to elucidate the relationship between inflation and the unemployment rate. In 1958, economist A. W. Phillips established a correlation between unemployment and inflation (Muhammad and Raza, 2013). The Philips curve demonstrates the negative correlation between the inflation rate and unemployment. "Economies vary in terms of their levels of unemployment and inflation." There is a positive correlation between increased unemployment and higher inflation in certain economies. There is a moderate correlation between high inflation and unemployment in certain economies, whereas in others, there is a positive correlation. Raz and Muhammad (2013), page 388. The impact of inflationary pressures on

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workers' motivation leads to a decrease in unemployment (Lui, 2009). According to a study conducted by Syed et al. (2009), which examined the impact of inflation on Pakistan's economy, the country's economy continues to suffer from excessive inflation, which negatively affects the utilisation of human resources.

Ultimately, Pakistan possesses a surplus of human capital, yet, the nation's unemployment rate remains substantial. The pace at which the unemployment rate decreases is heavily impacted by the rates of inflation and GDP growth. Hence, the objective of this study is to ascertain the extent to which Pakistan's unemployment rate has fluctuated over the past decade as a result of GDP expansion and inflation.

Methodology

This investigation focuses primarily on the empirical correlation that exists among inflation, unemployment, and GDP growth in the Pakistani economy. The secondary data utilised in the course of this research inquiry. Specifically, time-series data collected annually from 2000 to 2012 were utilised. To examine the relationship between unemployment and inflation and GDP growth rate, we constructed an ordinary least squares (OLS) regression model. These secondary sources of information were the 2012 Economic Survey of Pakistan and the State Bank of Pakistan's website. SPSS and MS-Excel were both utilised to analyse the data. The results of the study will offer measurable data regarding occurrences that can be utilised to enhance and develop activities that complement one another.

Regression applied to multiples Demonstrating the equation as follows:

$$y = B0 + B1x1 + B2x2$$

The unemployment rate is denoted as y, the dependent variable, in this context. The term "b0" represents the intercept, or constant, within a statistical model.

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The coefficients are designated by the variables b1 and b2, while the GDP growth rate is represented by the variable x1.

The variable denoted as x2 represents the inflation rate.

4. Results

Rapid economic expansion reduces unemployment by stimulating economic activity and employment opportunities. Pakistan and other underdeveloped countries with unstable economies must increase their Gross Domestic Product (GDP) substantially and consistently. Nevertheless, Figure 1 demonstrates that Pakistan's GDP expanded at a sluggish and irregular rate over the previous decade. In addition, improvement in Pakistan's unemployment rate and GDP growth rate was minimal. The country's accelerated population growth and the low labour force participation of women are the primary contributors to its high unemployment rate. A variety of factors can contribute to sluggish and uneven output development, such as inequitable income distribution, insufficient utilisation of accessible resources, energy-related challenges, and political instability.

In Table 1, a concise synopsis of the empirical findings pertaining to the regression model is provided. This regression model explains 64% of the variability in Pakistan's unemployment rate over the past decade, as indicated by its R-squared value of 0.64. The significance

The F-statistic value of 9.037 indicates that the equation adequately explains the relationship between the dependent variable (unemployment rate) and the independent variables (GDP growth rate and inflation).

Table 1: Results

Statistical Measures	Results

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R Square	0.72
Adjusted R Square	0.50
F-statistics	7.98*

Source: Author's own estimation

There is a statistically significant relationship between the two independent variables, as shown in Table 2. The inflation rate has a negative effect on Pakistan's unemployment rate, whereas the GDP growth rate has a positive effect. Looking at the B coefficient for real GDP growth, we find that for every 1% drop in real GDP growth, the unemployment rate drops by an average of 0.209. According to the B coefficient for general inflation, a 0.199% increase in inflation is positively correlated with an average decrease in the unemployment rate.

Table 2: Regression results

Model	Un standardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
Constant	5.687	0.456		8.67	.000
(GDP) Growth	0.981	0.456	0.567	3.45	.039
Inflation	-0.67	0.756	-0.978	-	.030

				1.345	

The government's initiatives are substantiated by a low unemployment rate, stable pricing, and robust GDP growth. However, the results of this investigation and the examination of existing literature demonstrate:

There is a strong correlation between inflation, economic growth, and the unemployment rate in Pakistan. The statistical data, specifically the F-statistics and R-square, indicate that the regression model is valid.

Summary:

Pakistan's economy is plagued by a range of macroeconomic challenges, such as price instability, sluggish GDP growth, limited female labor-force engagement, and rapid population expansion. Among these, the most significant factor is the country's elevated unemployment rate. This study examined the influence of inflation and GDP growth rates on the unemployment rate in Pakistan. Based on the data, both independent variables have a significant influence on Pakistan's current unemployment rate. Nevertheless, there exists a negative correlation (-0.70) between inflation and unemployment. The correlation coefficient (r=0.63) indicates a positive association between GDP and the unemployment rate. Consequently, the Pakistani government should enhance its fiscal and monetary policies to mitigate inflation, expedite economic growth, generate additional employment prospects, and alleviate poverty. In order to achieve a low unemployment rate and rapid economic growth, it is necessary to enhance both local and international investment. It is imperative to restrain the rapid increase in population and provide a more fair involvement of women in the labor market.

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